

Claims:

1. A method for discovering a network comprising network devices, the method comprising:

dividing the network into zones of network devices;

in a first zone of the network, identifying devices in the zone that have SNMP (Simple Network Management Protocol) access;

collecting data from the identified devices;

stitching the collected data into a topology of the network.

2. The method of Claim 1, comprising:

repeating the steps of identifying, collecting and stitching for each zone in the network.

3. The method of Claim 1, comprising:

dispatching identified devices in the zone to agents; and

collecting the data from the identified devices via the agents using the SNMP access.

4. The method of Claim 3, comprising:

caching the collected data; and

downloading the topology into a database.

5. The method of Claim 1, wherein the process of identifying comprises:

a first module receiving a list of managed nodes in the network and publishing the list of managed nodes to a first file;

a second module reading the first file and inserting data from the first file into a returns portion of a first database;

-12-

invoking a third module upon each insertion of data from the first file into the returns portion of the first database, which inserts data from the returns portion of the first database into a processing portion of the first database;

invoking a fourth module upon each insertion of data into the processing portion of the first database, the fourth module identifying nodes corresponding to the inserted data to a dispatch portion of a second database; and

a details agent obtaining node identifications from the dispatch portion of the second database, performing queries to the nodes corresponding to the node identifications, and inserting information received in response to the queries into a returns portion of the second database.

6. The method of Claim 5, wherein the process of collecting comprises:
invoking a fifth module, which accesses the returns portion of the second database, computes a list of the zones, and dispatches valid nodes in the first zone to active agents via a dispatch portion of a third database;

the agents collecting data from the valid nodes and returning the collected data to a returns portion of the third database.

7. The method of Claim 6, comprising:
invoking a sixth module, which causes the collected data in the returns portion of the third database to be processed into discovery topology data of the network and then downloaded;

invoking a seventh module, which clears the dispatch and returns portions of the third database and refreshes topology and layer databases and signals that topological analysis with respect to the zone has been completed.

8. A system for discovering a network organized into zones of network devices, comprising:

means for identifying devices in a zone of the network that have SNMP (Simple Network Management Protocol) access, collecting data from those devices in the zone identified as having SNMP access, and stitching the collected data into a topology of the network; and

means for transferring data to and from the means for identifying, collecting and stitching.

9. The system of Claim 8, wherein:

the means for transferring comprises a Graphical User Interface; and
the system comprises means for caching data.

10. The system of Claim 8, wherein the means for identifying, collecting and stitching repeats the identifying, collecting and stitching for each zone in the network.

11. A machine readable medium comprising a computer program for causing a computer to perform:

dividing the network into zones of network devices;
in a first zone of the network, identifying devices in the zone that have SNMP (Simple Network Management Protocol) access;
collecting data from the identified devices;
stitching the collected data into a topology of the network.

12. The medium of Claim 11, wherein the computer program causes the computer to perform:

repeating the steps of identifying, collecting and stitching for each zone in the network.

-14-

13. The medium of Claim 11, wherein the computer program causes the computer to perform:

dispatching identified devices in the zone to agents; and

collecting the data from the identified devices via the agents using the SNMP access.

14. The medium of Claim 11, wherein the computer program causes the computer to perform:

caching the collected data; and

downloading the topology into a database.

15. The medium of Claim 11, wherein the computer program includes first, second, third and fourth modules and a details agent, and causes the computer to perform:

the first module receiving a list of managed nodes in the network and publishing the list of managed nodes to a first file;

the second module reading the first file and inserting data from the first table into a returns portion of a first database;

invoking the third module upon each insertion of data from the first table into the returns portion of the first database, which inserts data from the returns portion of the first database into a processing portion of the first database;

invoking the fourth module upon each insertion of data into the processing portion of the first database, the fourth module identifying nodes corresponding to the inserted data to a dispatch portion of a second database; and

the details agent obtaining node identifications from the dispatch portion of the second database, performing queries to the nodes corresponding to the node identifications, and inserting information received in response to the queries into a returns portion of the second database.

-15-

16. The medium of Claim 15, wherein the computer program includes a fifth module and causes the computer to perform:

invoking the fifth module, which accesses the returns portion of the second database, computes a list of the zones, and dispatches valid nodes in the first zone to active agents via a dispatch portion of a third database;

the active agents collecting data from the valid nodes and returning the collected data to a returns portion of the third database.

17. The medium of Claim 16, wherein the computer program includes sixth and seventh modules and causes the computer to perform:

invoking the sixth module, which causes the collected data in the returns portion of the third database to be processed into discovery topology data of the network and then downloaded;

invoking the seventh module, which clears the dispatch and returns portions of the third database and refreshes topology and layer databases and signals that topological analysis with respect to the zone has been completed.